WLPCS Geometry Name_____

3.1 Triangle Inequality Theorem Practice

Date_____ Period____

State if the three numbers can be the measures of the sides of a triangle.

1) 9, 6, 3

2) 9, 7, 7

3) 5, 3, 8

4) 35, 53, 25

5) 26, 13, 50

6) 33, 35, 7

Two sides of a triangle have the following measures. Find the range of possible measures for the third side.

7) 49, 39

8) 48, 33

9) 48, 32

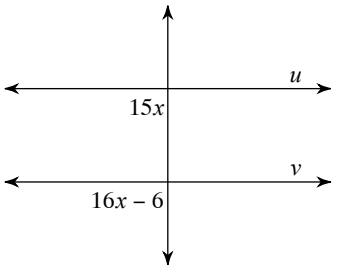
10) 50, 32

11) 49, 27

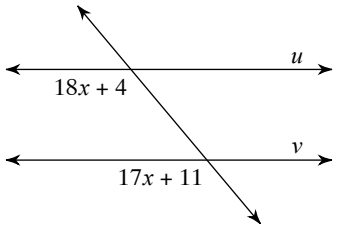
12) 37, 37

Find the value of *x* that makes lines u and v parallel.

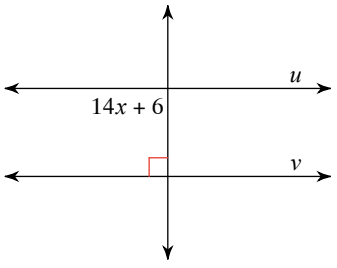
13)



14)



15)



Find the other endpoint of the line segment with the given endpoint and midpoint.

16) Endpoint: $(-4, -3)$, midpoint: $(8, 4)$

17) Endpoint: $(6, -5)$, midpoint: $(10, -10)$

WLPCS Geometry Name_____

3.3 Triangle Inequality Theorem Practice

Date_____ Period____

State if the three numbers can be the measures of the sides of a triangle.

1) 9, 6, 3

No

2) 9, 7, 7

Yes

3) 5, 3, 8

No

4) 35, 53, 25

Yes

5) 26, 13, 50

No

6) 33, 35, 7

Yes

Two sides of a triangle have the following measures. Find the range of possible measures for the third side.

7) 49, 39

$10 < x < 88$

8) 48, 33

$15 < x < 81$

9) 48, 32

$16 < x < 80$

10) 50, 32

$18 < x < 82$

11) 49, 27

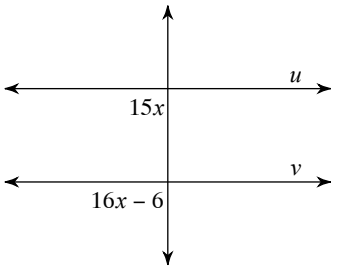
$22 < x < 76$

12) 37, 37

$0 < x < 74$

Find the value of *x* that makes lines u and v parallel.

13)



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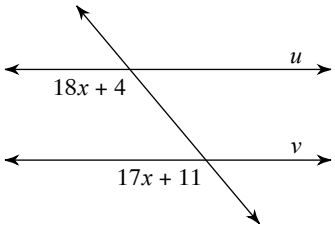
14)



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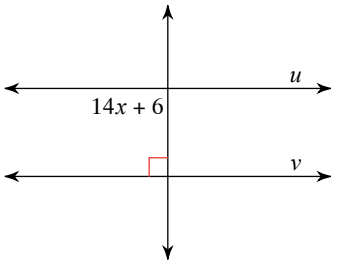
15)



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Find the other endpoint of the line segment with the given endpoint and midpoint.

16) Endpoint: $(-4, -3)$, midpoint: $(8, 4)$

$(20, 11)$

17) Endpoint: $(6, -5)$, midpoint: $(10, -10)$

$(14, -15)$